Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D. C. 20554

In the Matter of	)	
	)	
Schools and Libraries Universal Service Support Mechanism	)	CC Docket No. 02-6
	)	
	)	
Eligible Services List for Universal Service Mechanism for Schools and Libraries	)	

COMMENTS

BellSouth Corporation, by counsel and on behalf of its wholly owned affiliated entities that participate in the schools and libraries universal service support program,[1] hereby responds to the Commission's *Public Notice* seeking comment on USAC's proposed 2006 Eligible Services List ("ESL").[2]

BellSouth supports the USAC proposal that, "the 2006 List make VPN [Virtual Private Network] eligible [to receive discounts under the Schools and Libraries Support Mechanism] under the concept of 'basic and reasonable security protections.'"[3] Not only should VPN be eligible to receive discounts if it is provisioned through VPN "Internal Connections" components

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[1] The schools and libraries universal service support program is administered by the Commission-appointed Universal Service Administrative Company ("USAC") under continuing Commission oversight.

[2] *Pleading Cycle Established for Eligible Services List for Universal Service Mechanism for Schools and Libraries*, CC Docket No. 02-6, *Public Notice*, FCC 05-158 (rel. Aug. 15, 2005).

[3] Summary of Proposed Changes to FY 2006 Eligible Services List, http://www.sl.universalservice.org/data/pdf/Summary%20%20of%20Proposed%20Changes.pdf.

("CPE-based VPN"), but VPN as a security service and vital security function should also be eligible to receive discounts if it is provisioned through technologies and protocols embedded in network service solutions ("Network-based VPN"). Because both CPE-based VPN and Network-based VPN afford program applicants the same or similar "basic and reasonable security protections," the Commission is bound, under its universal service support principle of competitive neutrality,[4] to extend eligibility to VPN regardless of the way it is provisioned.

USAC defines VPN functionality in a network and systems context. As USAC notes:

> Most network switches and routers now contain Virtual Private Network (VPN) functionality as an integral component. A VPN provides improved security for a data system, and we note that the FCC has been transitioning toward increased eligibility of security features.[5]

The ESL describes VPN as a *network* that "uses encryption and/or tunneling services in order to provide highly secure communication over the public Internet or in some cases over point-to point links."[6] USAC proposes that CPE-based VPN be eligible for discount as internal connections if it provides "basic and reasonable security protections to prevent unauthorized access to the information, software, and systems of an applicant's eligible components."[7] Because Network-based VPN uses encryption and/or tunneling services in order to provide highly secure communication over the public Internet or in some cases over point-to-point links in exactly the same way as CPE-based VPN, and because Network-based VPN provides basic

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4 *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, *Report and Order*, 12 FCC Rcd 8776, 8801, ¶ 47 (1997) ("*Universal Service Order*").

5 Summary of Proposed Changes to FY 2006 Eligible Services List, *supra* note 3 (noting that Firewall was made eligible in Fund Year 2004 and Proxy Server was changed to eligible in 2005).

6 USAC Schools & Libraries, Eligible Services List, Schools and Libraries Support Mechanism for Fund Year 2006 ("ESL") (attached to *Public Notice*) at 53.

7 *Id.*

and reasonable security protections to prevent unauthorized access to the information, software, and systems of program applicants, Network-based VPN technologies should also be eligible.

The Commission should adopt USAC's proposal with respect to VPN components in the data distribution functional category of Internal Connections. In addition, because VPN technologies embedded in networks provide a vital security function, indeed, "basic and reasonable security protections,"[8] within those networks, it is critically important that VPN be explicitly included in all three program categories: Telecommunications Services, Internet Access, and Internal Connections. The Commission should therefore remedy USAC's apparent oversight in addressing VPN only in the context of Internal Connections by similarly explicitly addressing technologies that provide VPN security functions in the Telecommunications Services and Internet Access categories.

To this end, the Commission should add "Virtual Private Network (VPN) Technologies" to the "Product Type (function)" column of both the Telecommunications Services List and to the Internet Access List. The "Description" on both lists should mirror that proposed by USAC for the Internal Connections list,[9] with appropriate modifications to cover Network-based VPN:

> A Virtual Private Network (VPN) uses encryption and/or tunneling *technologies including, but not limited to, multiprotocol label switching (MPLS), secure socket layer (SSL), Internet protocol security (IPsec), and new protocols that develop as these data networking technologies continue to evolve,* in order to provide highly secure communication over the public Internet or in some cases over point-to-point links.[10]

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8 *Id.* (Eligibility).

9 *Id.* (Description).

10 *Cf. id.* (changes in text represented in italics).

The Commission should also add, beneath this description, an "Eligibility" entry in each of the Telecommunications Services and Internet Access categories that mirrors the Eligibility condition found on the proposed Internal Connections list:

> Virtual Private Network *technologies* are eligible for discount if they provide basic and reasonable security protections to prevent unauthorized access to the information, software and systems of an applicant's eligible *products and services*.[11]

The ESL should avoid the appearance of favoring one particular network security solution (CPE-based VPN, made explicitly eligible by the inclusion of VPN components in the data distribution functional category for Internal Connections) over another (Network-based VPN, not explicitly acknowledged in Telecommunications Services or Internet Access). Regulatory even-handedness is mandated by the bedrock principle of competitive neutrality in the context of universal service support:

> Universal service support mechanisms and rules should be competitively neutral. In this context, competitive neutrality means that universal service support mechanisms and rules neither unfairly advantage nor disadvantage one provider over another, and neither unfairly favor nor disfavor one technology over another.[12]

Moreover, the Telecommunications Act expressly requires the Commission to "establish competitively neutral rules to "enhance . . . access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms."[13] As the Joint Board foresaw in 1997, the principle of competitive neutrality includes the concept of technological neutrality and therefore allows "the marketplace to direct the development and

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11 *Cf. Public Notice*, ESL at 53 (Eligibility) (changes in text represented in italics).

12 *Universal Service Order*, 12 FCC Rcd at 8801, ¶ 47.

13 47 U.S.C. §§ 254(b)(6), (h)(2).

growth of technology and avoid[] endorsement of potentially obsolete services."[14] The Commission concurred in the Joint Board recommendation, holding that the Joint Board "correctly recognized that the concept of technological neutrality does not guarantee the success of any technology supported through universal service support mechanisms, but merely provides that universal service support should not be biased toward any particular technologies."[15]

The Commission should therefore make the foregoing modifications and ensure that both Network-based VPN and CPE-based VPN are eligible provided they meet the Eligibility criteria listed for VPN in each of the Commission's three product categories. The market is clearly directing the growth and development of Network-based VPN as an integral security feature functionality.[16] The USAC Proposed Changes to the ESL recognizes this market development, but is only explicit in its recognition in the context of Internal Connections, even though the ESL describes VPN, as it must, as a *network* that "uses encryption and/or tunneling services in order to provide highly secure communication over the public Internet or in some cases over point-to point links."[17] The Telecommunications Act and the Commission's universal service support rules are designed to enhance access to advance telecommunications and information services on a competitively neutral basis.[18] Eligibility for Network-based VPN should be made equally explicit through the modifications to the proposed 2006 ESL advocated by BellSouth above.

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14 *Universal Service Order*, 12 FCC Rcd. at 8800, ¶ 45.

15 *Id.* at 8802, ¶ 49.

16 Carol Wilson, *Network VPN Market Bursting at the Seams*, Telephony, Aug. 15, 2005, at 28.

17 *Public Notice*, ESL at 53.

18 47 U.S.C. §§ 254(b)(6), (h)(2).

CONCLUSION

USAC's proposal to make CPE-based VPN eligible for discounts through data distribution internal connections should be adopted. USAC's proposed 2006 ESL should be modified in both the Telecommunications Services and Internet Access categories to make explicit the eligibility of Network-based VPN employing embedded MPLS, SSL, IPSec and other new protocols that develop as these data networking technologies continue to evolve.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I do hereby certify that I have this 25th day of August, 2005, served the following parties to this action with a copy of the foregoing **COMMENTS** by electronic filing to the parties listed below.

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